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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,595	11/21/2000	Dan Kikinis	P1541D1	5336

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TODD S. PARKHURST
HOLLAND & KNIGHT LLP
131 S. DEARBORN STREET
30TH FLOOR
CHICAGO, IL 60603

EXAMINER
PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/718,595	KIKINIS, DAN
		Examiner	Art Unit	
		Prieto Beatriz	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *17 May 2006*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *16-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *16-33* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *November 21 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 17, 2006 has been entered.   Claims 16-33 now remain pending and are hereby set forth for examination.

2.   Objection to claim 34 canceled via the above mentioned communication is withdrawn.

Claim Rejections - 35 USC § 103

3.   Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

4.   Claims 16-33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Broadwin, et. al. (Broadwin) U.S. Patent No. 5,929,850 in view of Eyer U.S. Patent No. 5,982,445 in further view of Williams, Jr. U.S. Patent No. 4,868,866 (Williams hereafter).

Regarding claim 16, Broadwin teach a system for providing information, including a set top box system, comprising;

        a broadband receiver (140) to receive a displayable SINGLE data stream (col 6/lines 50-60);

        displayable indicia are pre-associated with commands (col 6/lines 18-23, 32-44) at a head end (100) (col 5/lines 21-36, selection options/thumbnails, col 9/lines 27-63, link data, col 6/lines 40-44) and provided as a part of the "FUTURE PROGRAMMING" information in a displayable SINGLE data stream (col 6/lines 18-23, 32-44);

        circuitry to select the information, including the displayable indicia, and to cause it to be displayed (col 5/lines 64-col 6/lines 8);

a memory (col 7/lines 13-34) for storing (col 2/lines 64-66) information including displayable indicia (col 6/lines 53-60) continuously received (col 9/lines 1-8, col 6/lines 28-31), wherein said memory is repeatedly updated by said information including displayable data stream (steps 446 and 448 of Fig. 8);

user-operable apparatus (152) to select the displayable indicia (col 7/lines 52-63, col 9/lines 15-26);

wherein, in response to selecting the displayable indicia, a the command associated with the selected displayable indicia is executed (col 11/lines 6-26, col 7/lines 58-63, col 8/line 5-12, col 10/line 4-17, 58-63); however prior does not teach where the information is particularly future programming information;

Eyer teaches display data (displayable indicia) are pre-associated with commands at a service provider 100 (col 7/lines 59-col 8/line 19) and provided to head end (160) as a transport stream for distribution to the set-top-box system (col 8/lines 20-38), display data is provided as a part of the program guide with program scheduling information (programming information) in a displayable data stream, (col 4/lines 20-col 5/line 10);

a memory (col 8/lines 39-64 and col 9/lines 14-30) to store programming information (col 8/lines 39-64), wherein said memory is repeatedly updated by said displayable data stream (updated repeatedly see col 11/lines 1-12, or updated upon demand col 9/lines 5-13 col 10/lines 6-11, 21-26 or updated in real-time see col 10/lines 49-59); although the prior art teaches providing from a remote database receiving information from a plurality of sources, pages of data for a user; however it does not explicitly teach a remote database receiving information from a variety of sources, the database is periodically searched "scanned" for identified data.

Williams teaches a scanning periodically a database (col 8/lines 58-col 9/line 2, 32-41 and col 23/lines 67-col 24/line 40) for identified data (col 7/lines 50-65) for the user (col 11/lines 50-64).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to utilize Eyer's teaching where displayable indicia are pre-associated with commands at a service provider system and provided as part of the future "FUTURE" programming information in a displayable data stream to the set-top box, as taught by Eyer, motivation would include with

the audiovisual content other audiovisual programming that is normally seen on television utilizing the commands associated with the audiovisual content to commands for controlling television and non-television appliance functions along with commands for purchasing over the Internet, as taught by Eyer. It further would have been obvious at the time the invention was made given the suggestions of Broadwin for providing periodically from a remote database information in the form of a page to the user, suggesting providing information news and stock related information, to utilize Williams teaching for providing a user periodically database information such as stock and news information, motivation would be to complement Broadwin system utilizing Williams suggestion of implementing his teachings for other type of information that can be formatted into a machine readable format compatible with whatever system design choice may be, including may be converted for broadcast in any readily format, and wherein user's receiving device may be a personal computer, readily implementable in Broadwin's system.

Regarding claim 17, wherein execution of the command comprises switching the display to a channel associated with the ~~future~~ "future" programming (Eyer: switching channels, abstract, program guide schedule information col 4/lines 47-50, selection of particular programming service channel, col 4/lines 66-col 5/line 10).

Regarding claim 18, wherein a portion of the information received comprises WEB pages in a Markup Language (Eyer: abstract, col 5/lines 13-26).

Regarding claim 19, wherein the broadband receiver comprises a satellite data link adapted to download a satellite broadcasted data stream, and the information is received via the satellite data link (Eyer: Fig. 1, col 8/line 13-17, 30-32, 39-44).

Regarding claim 20, wherein a portion of the information received by satellite data link comprises Markup Language (110) (Eyer: Fig. 1, col 8/lines 39-52).

Regarding claim 21, wherein the ~~future~~ "future" programming information is received along with television programming (Eyer: col 4/lines 20-col 5/line 10).

Regarding claim 22, a memory system (cache) wherein the ~~future~~ "future" programming information including the command and displayable indicia associated with the command is stored (Broadwin: col 8/lines 53-56).

Regarding claim 23, wherein the broadband receiver (Eyer: col 5/lines 13-26) further comprises a satellite data link adapted to download a satellite broadcast data stream (Eyer: col 8/lines 20-38), and a land-based modem (324) (Broadwin: col 7/lines 64-col 8/line 3), and the ~~future~~ "future" programming information is received by one or both of the satellite data link and the land based modem (Eyer: Fig. 1, col 8/lines 39-52, Eyer: col 4/lines 20-col 5/line 10).

Regarding claim 24, a user-operable WEB browser for browsing for Web-based information. (Eyer: col 9/lines 16-18).

Regarding claim 25, this claim comprises the method including features comprised in a ~~set-top box~~ system discussed in claim 16, same rationale of rejection is applicable for the method claims.

Regarding claims 26-33 these claims are substantially the same as claims 17-24, respectively, same rationale of rejection is applicable.

Regarding claim 34, (CANCELED)

5.   Claims 16 and 25 are also be rejected under 35 U.S.C. 103(a) as being unpatentable over Harper et. al. (Harper) U.S. Patent No. 5,585,858 in view of Coleman et. al. (Coleman) U.S. Patent No. 5,844,620.

Regarding claim 16, Harper teaches a ~~set-top-box~~ system (600 of Fig. 3), (col 6/lines 40-41, col 3/lines 66-col 4/line 5), comprising;

receiver coupled to a broadband bandwidth channel for receiving digital/analog data, e.g. conventional television broadcast signals (i.e. a broadband receiver) (col 3/lines 44-col 4/line 5, col 6/lines 28-41);

receiving by said receiver displayable SINGLE data stream (col 3/line 43-46, 52-65),

displayable data stream e.g. video and graphics signal from a head end, (col 6/lines 16-25, 31-35, col 9/lines 6-21) including command(s) associated with a displayable indicia (col 8/lines 19-26, col 7/lines 19-22, commands, col 19/lines 15-21, commands associated with displayable indicia, col 8/lines 1-14, 19-26, 34-42, col 9/lines 14-19);

circuitry (616 of Figs. 3 and 7, col 5/lines 6-11) for selecting in the displayable indicia stream (col 12/lines 17-34, displayable data stream col 5/lines 67-col 6/line 9) and to form displayable data stream (col 12/lines 17-34, col 18/lines 39-42), the display including the displayable indicia (col 17/lines 51-59);

user-operable apparatus (604 of Fig. 1, col 6/lines 41-42) to select the displayable indicia (col 6/lines 49-col 7/line 6);

in response to selecting the displayable indicia, the command associated with the selected indicia is executed (col 18/line 59-col 19/line 6), in response to a selection of displayable indicia associated with a command is execution (col 7/line 65-col 8/lines 1-14); however Harper does not explicitly teach where displayable data stream including a displayable data stream which further includes ~~future~~ "FUTURE" programming is received;

Coleman teaches receiving in real time video data including displayable data stream including ~~future~~ "future" programming information (e.g. video and graphic blended in received stream, col 2/line 45-55),

data stream including "demand data stream" further including ~~future~~ "future" programming information (i.e. schedule guide) is received, (col 4/lines 60-col 5/line 3), received (32), demultiplexed (34) and displayed (54) (col 13/lines 37-48, 62-col 14/line 4, 19-22, rendered i.e. cause it to be displayed, col 7/lines 2-14) program guide is acquired and displayed caused it to be displayed in real time, (col 6/lines 39-59 and col 7/lines 2-14 retrieved and displayed immediately);

displayable data stream information including displayable indicia associated with commands (col 3/lines 36-42, col 15/lines 32-42);

a memory to store said programming information, where said memory is repeatedly updated by said displayable data stream (storing e.g. in a RAM programming information repeatedly updated see col 1/lines 28-32, 56-col 2/line 11, repeatedly updated in real time col 4/lines 48-col 5/line 3); although the prior art teaches providing from a remote database receiving information from a plurality of sources, pages of data for a user; however it does not explicitly teach a remote database receiving information from a variety of sources, the database is periodically searched "scanned" for identified data.

Williams teaches a scanning periodically a database (col 8/lines 58-col 9/line 2, 32-41 and col 23/lines 67-col 24/line 40) for identified data (col 7/lines 50-65) for the user (col 11/lines 50-64).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include displayable data stream received in real time including displayable data stream further including ~~future~~ "future" programming, motivation would be to further enhance Harper's composite interactive programming including ~~future~~ "future" graphics message selection and associated commands broadcast as data codes embedded in the conventional video signal may be created to be include in other broadcast programs, as suggested by Harper. It further would have been obvious at the time the invention was made to utilize Williams teaching for providing a user periodically database information such as stock and news information, motivation would be to utilizing Williams suggestion of implementing his teachings for other type of information that can be formatted into a machine readable format compatible with whatever system design choice may be, including may be converted for broadcast in any readily format.

Regarding claim 25, comprises the method for commanding the set-top box apparatus claimed on claims 16 and/or 34 rejected for obviousness under U.S.C. 103, this same rationale is also applied to method claims.

Response to Arguments

6.   Regarding claims 16-33 and 34 rejected as being unpatentable over Broadwin in view of Eyer in further view of Williams it is argued (p. 6 of remarks) that the applied prior art does not teach claim limitation as amended. Specifically, do not teach where the head end provides as part of the future programming information in a displayable SINGLE data stream, where the broadband receiver to receive the displayable SINGLE data stream.

In response to the above-mentioned argument, applicant's interpretation of the applied prior art has been fully considered. In this case, although the claimed term "head end" seems to lack antecedent basis in the specification, according to the invention's disclosure: In FIG. 3 server 110, running a Simulcast application according to an embodiment of the present invention *scans database 100* by scanning operation 101 and *uploads especially marked WEB content* bearing, in many instances, tags constituting commands for controlling functionality of a set top box in *data stream 303* to a system modulator 305, where *data stream 303 is multiplexed with the general broadcast stream 304*. Modulator 305 is typically a transport stream multiplexer (mux) as used in VSS or BVD satellite standards, but other embodiments are possible. From mux 305 *the combined data stream* is uplinked to satellite 113, and *then rebroadcast as stream 307* to any adapted systems capable of receiving and using the data stream (page 11, lines 7-13).

Eyer teaches where: The programming services data and the HTML/HTVP data are provided to a multiplexer 115, which outputs **a corresponding combined signal** to a transmitting antenna 120. The transmitting antenna transmits **a signal** to a receiving antenna 155 via a satellite 125. The signal may be carried as **a packetized digital transport stream** which conforms to, for example, the Moving Pictures Experts Group-2 (MPEG-2) standard. (column 8, lines 13-19); **The transport stream** is provided to a cable system headend 160, where **the data** may be processed for **distribution to cable system customers.** For example, various decryption/encryption and scrambling/descrambling operations may take place. Additionally, insertion of local commercials and programming may occur. Moreover, at the cable system headend 160, it is possible to provide HTML/HTVP data in addition to, or in lieu of, the data provided by function 110 using means not shown. For example, HTML/HTVP data from local businesses and broadcasters may be provided.   Moreover, **the transport** stream may be

broadcast **directly to the user** via a direct broadcast satellite system, microwave broadcast system, or the like. (column 8, lines 20-32); The cable system headend 160 distributes **the transport stream** to subscribers via representative hubs 165 and 170, and spokes as shown. **At a subscriber's home 180, a decoder receives the transport stream**, decodes it, and provides an audio and video signal for reproduction on a television 188 or similar video display appliance. (column 8, lines 33-38); FIG. 2 is a block diagram of a television receiver in accordance with the present invention. The decoder, shown generally at 180, corresponds to the decoder of FIG. 1. The **decoder 180 receives the transport stream from the cable headend**, or alternatively, directly from a satellite in a direct broadcast satellite communication scheme (column 8, lines 39-52)

see Eyer's claim 1: broadcasting **a common data signal** comprising display data to the subscriber decoders, said display data being coded according to the hypertext markup language;

see Eyer's claim 7: said data signal and an associated video programming service signal are carried together in **a digital transport data stream** that is broadcast to said subscriber decoders.

The Broadwin reference teaches:

The broadcast center 100 also includes an application server 104 for creating and/or generating interactive application content. The interactive application content comprises *application code and data* which is designed to be executed by a processor within a set top box or television to support an interactive television feature (column 5, lines 11-20);

An Encoder/Multiplexer 106 *combines the interactive application content with the audiovisual content* to produce *an audio-video-interactive (AVI) signal.* The Encoder/Multiplexer 106 preferably multiplexes a plurality of signals, including AVI signals and optionally non-interactive signals, *together* for transmission. (column 5, lines 21-33). The broadcast center 100 also includes an uplink satellite 108 for transmitting *the broadcast signal* for receipt by end-users or a subsequent distribution link. It is noted that FIG. 1 illustrates a satellite network example where a satellite is used to *transmit the broadcast signal* (column 5, lines 34-41); *The broadcast signal* is received from broadcast center 100 via a satellite downlink 120. *The broadcast signal* is then provided to a plurality of subscribers. As noted

above, *the* broadcast signal includes *one* or more AVI signals on respective channels, and may include *one* or more non-interactive program signals. (column 5, lines 43-47)

Applicant's argument (p. 6 of remarks) that Eyer "merely presents standard textual and graphical displays using hypertext markup language (HTML) and no displayable single data stream having embedded displayable indicia pre-associated with commands", are not persuasive.

Applicant's argument (p. 6 of remarks) that Broadwin "uses a data stream and a still image", are not persuasive.

The inventions *data stream 303 multiplexed with the general broadcast stream 304* forming a *combined data stream* is uplinked to satellite 113, and *then rebroadcast as stream 307* (as described page 11, lines 7-13) seems not distinguishable over the prior art.

7.   Regarding claims 16 and 25 rejected as being unpatentable over Harper in view of Coleman it is argued (p. 7-8 of remarks) that the applied prior art does not teach claim limitation as amended. Specifically, do not teach where the head end provides as part of the future programming information in a displayable SINGLE data stream, where the broadband receiver to receive the displayable SINGLE data stream.

In response to the above-mentioned argument, applicant's interpretation of the applied prior art has been fully considered. As discussed above, the inventions *data stream 303 is multiplexed with the general broadcast stream 304* forming a *combined data stream* is uplinked to satellite 113, and *then rebroadcast as stream 307* to any adapted systems capable of receiving and using the data stream (as described page 11, lines 7-13) seems not distinguishable over the prior art.

In this case, Harper teaches: A system for simulcasting a fully interactive program with a normal conventional program *in the same standard video signal bandwidth* (see abstract); It is the object of the current invention to simulcast an interactive television program and a conventional television program, all as part of *one standard video signal* to each of a multitude of subscribing interactive participants. It is an object of the invention to use an analog transmission means for sending multiple interactive audio signals and data codes **with a single**

video signal. It is an object of the invention to use digital transmission technology for combining multiple interactive audio signals, a video signal and data codes onto a **single** composite digital interactive video signal (column 4, lines 6-19).

Applicant's arguments that Harper "merely teaches a simulcast", where his teaches are "very different from applicant's system displayable indicia are pre-associated with commands at a head end and provided as a part of the future programming information in a displayable SINGLE data stream", have been considered, but not rendered persuasive.

8.   It is respectfully noted that although applicant has removed "a set top box" from the claims and replace it with "a system", the breadth the term "system" does not exclude a set-top box/television, particularly if the claims contain "a broadband receiver" (clm 16) ~~and a "tuner" (clm 34)~~. The breadth of the term "programming information" does not exclude "future programming information", applicant's is entitled to be his/her own lexicographer, however, claims are given the broadest reasonable interpretation in light of the specs (MPEP 2111/2106).

9.   Applicant arguments filed in the above noted communication have been fully considered but not rendered persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Andrew T. Caldwell can be reached at (571) 272-3868. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see http://pair-direct.uspto.gov or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
           Commissioner of Patents and Trademarks
           P.O. Box 1450
           Alexandria, VA 22313-1450

Hand carried or delivered to:
           Customer Service Window located at the Randolph Bldg.
           401 Dulany St.
           Alexandria, VA 22314

Faxed to the Central Fax Office:
           (571) 273-8300 (New Central Fax No.)

Or Telephone:

           (571) 272-2100 for TC 2100 Customer Service Office.

BEATRIZ PRIETO
PRIMARY EXAMINER

B. Prieto
Primary Examiner
TC 2100
June 22, 2006